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SCHOOL OF MEDICINE  
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July 18, 1988

Mr. Paul Warenski  
c/o Representative Wayne Owens  
1728 Longworth  
House Office Building  
Washington, DC 20515

Dear Mr. Warenski:

I support in strongest terms the bill in preparation by Representative Owens to transfer all funds for the Biological Defense Program from the Department of Defense into the budget of National Institutes of Health. Together with Charles Piller, I recently coauthored a book, "Gene Wars: Military Control Over the New Genetic Technologies" (Beachtree/William Morrow, 1988) that investigated in detail the history and present status of this Program. I am also a molecular biologist, and Professor and Vice Chairman in the Department of Biochemistry at the University of California, San Francisco, as well as Chairman of the Molecular Biology Study Section of the NIH. My laboratory carries out basic research on mechanisms of gene expression, and we use recombinant DNA and monoclonal antibody technology as primary research tools on a daily basis. Thus, I am quite familiar with both the political and the scientific sides of this issue.

Briefly, there are three major problems with DOD control over the Biological Defense Program. The first concerns arms control. The Pentagon has proclaimed recombinant DNA and monoclonal antibody technologies as powerful new tools that ostensibly facilitate the production (by our enemies) of powerful and novel weaponry. On the contrary, biological weapons are neither more useful nor more controllable when generated by these new techniques. Given this rationale for its own intense efforts in this arena, much of the Pentagon's research effort seems to employ biotechnology to eliminate the distinction between defensive and offensive biological weapons research, a distinction that is crucial to the word and spirit of the 1972 Weapons Convention. Thus, the DOD strategy is dangerously destabilizing to any arms control efforts. Indeed, it virtually demands that other nations, large and small, develop parallel programs.

The second problem concerns public health. The DOD has a shoddy history with respect to the safety of its testing programs; recall, for example, the release of biological agents over San Francisco Bay and in the New York subway system in the 1950's. The Pentagon-controlled Biological Defense Program is not subject to the scrutiny given to NIH-funded research. As you are well aware, ongoing efforts by the Army to refit Dugway Proving Ground as an aerosol and pathogen testing facility represent a monumental case of arrogance and disregard for public health concerns.

The third issue regards utilization of fiscal and intellectual resources. Our analysis of the scientific quality of projects carried out under the auspices of the DOD, and of DOD procedures for awarding and allocating funds, revealed several disturbing problems. DOD research is carried out almost exclusively by contract, in which researchers are invited to submit proposals that would satisfy narrowly defined programmatic goals. In itself, such a targeted research program discourages participation by the most innovative researchers. Moreover, the scientific review of those applications is advisory only (the DOD can and does fund even projects that receive negative evaluations if they are deemed of sufficient military importance), and many of the reviewers themselves are poorly qualified. In contrast, the open grant system and peer review process used to evaluate NIH grant applications has produced in this nation the most broad-ranging, creative and dynamic biological research enterprise in the world. The Nobel Prize in Physiology or Medicine is consistently won by Americans with NIH support. NIH funded research has cured disease, developed new drugs and patient treatment methodologies, and uncovered the key facts that generated the biotechnology industry. With this remarkable success record, coupled with continued threats to the NIH program at a time when DOD support for biological weapons research has increased five-fold under Reagan, one must conclude that the DOD funds at best are being wasted.

The NIH system is a proven entity that has yielded spectacular advances. In this context, maintaining a vastly inferior biological research program within the DOD is illogical on many grounds. Meanwhile, annual budget cuts inflicted on NIH grants threaten to erode the scientific support system so painstakingly crafted with the aid of Congress and the American public, just at a time when the fruits of its efforts are most rapidly and effectively touching all of our lives. I applaud and encourage your efforts. If I can be of any assistance in this matter, please do not hesitate to contact me.

Sincerely yours,



Keith R. Yamamoto  
Professor and Vice Chairman